Hawaii Reapportionment Commission
6 September 2011

Extraction Method Update

Permanent and Non-Permanent Military Residents

The non-permanent resident extraction model used in 1991 and 2001 relied on receiving location specific (address or ZIP Code) residence information for the specific non-permanent residents to be extracted.

In 2011, the data received from the Defense Manpower Data Center (DMDC) does not provide residence information for military sponsors nor does it provide specific breakdowns of permanent and non-permanent residents by location.

This lack of specific data from DMDC does not allow the model used previously to be used this time. Examples from Schofield Barracks, Marine Corps Base Hawaii and Joint Base Pearl Harbor will help illustrate.

Data from DMDC for ZIP Code 96857 shows 17,004 sponsors and 968 dependents, for a total of 18,012 military residents. DMDC does not indicate what portion of the 18,012 are permanent residents and what portion are non-permanent residents. U.S. Census data for ZCTA 96857 shows a total population of 2,522. DMDC only reports sponsor duty ZIP Codes. We do not know where these sponsors live or where they would have been counted by the U.S. Census. Data from DMDC shows sponsors and dependents spread statewide with the majority on Oahu, but it does not distinguish between permanent and non-permanent residents.

Extraction of Non-Permanent Military Residents

Three types of uncertainty about the data– DMDC Military Data:

LOCATION: Where is the non-permanent resident's usual residence? DMDC reports only duty station given for sponsors

TIMELINESS: Was that their usual residence on April 1, 2010? DMDC reports March 30, 2010

NON-PERMANENT STATUS: Is the person a non-permanent resident? DMDC reports not individually identified

Non-Permanent Student Residents Disaggregation

If extractions to the U.S. Census PL 94-171 census block counts are to be made for redistricting, data on the non-permanent populations to be extracted must also be

known or estimated at the census block level. For privacy reasons, data is often only provided at a ZIP Code level. A disaggregation model is applied to assign ZIP Code-level non-permanent populations to individual census blocks in proportion to the total population of each census block.

Extraction of Non-Permanent Residents - Three types of uncertainty – Students:

LOCATION: Where is the non-permanent resident's usual residence?

Census block = more certain   Some institutions provided full address

ZIP code = less certain   Some institutions provided ZIP Code only

TIMELINESS: Was that their usual residence on April 1, 2010. Institutions reported Spring Semester 2010

NON-PERMANENT STATUS: Is the person a non-permanent resident? Identified by institution as non-resident

How are military sponsors and dependents in Hawaii counted by the US Census?

GROUP QUARTERS:

- Living in barracks
- Shorter-term
- Counts by census block

MILITARY ON-BASE:

- Living in on-base housing
- Longer-term
- Families work and go to school here
- Counts by census block

MILITARY OFF-BASE:

- No counts provided by U.S. Census

Three types of uncertainty – Military Group Quarters and On-Base:

LOCATION: Where is the non-permanent resident's usual residence?

- Group quarters   census block
- On-base   census block

TIMELINESS: Was that their usual residence on April 1, 2010?

- Group quarters   counted on Census Day
- On-base   counted on Census Day

NON-PERMANENT STATUS: ? Is the person a non-permanent resident?

- Group quarters   unknown, barracks are transient housing
- On-base   unknown, on-base less transient than group quarters

<u>THREE EXTRACTION METHODS:</u>

EXTRACTION A:

  Census block location known, fairly certain non-permanent status

- Students with full addresses
- Military in Group Quarters

EXTRACTION B:

  Census block location known, less certain non-permanent status

- Military living On-base

EXTRACTION C:

Census block location not known, fairly certain non-permanent status

- Students with only ZIP Codes

EXTRACTION A:	extraction	adjusted total
Honolulu	-15,660	937,547
Hawaii	-793	184,286
Maui	-4	154,920
Kauai	-1	67,090

EXTRACTION B (includes Extraction A):

Honolulu	-72,609	880,598
Hawaii	-796	184,283
Maui	-4	154,920
Kauai	-143	66,948

EXTRACTION C (includes Extraction B):

- Honolulu   -78,524   874,683
- Hawaii   -921   184,158
- Maui   -178   154,746
- Kauai   -198   66,893

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